We claim:

5

10

15

20

25

30

- 1. A bicistronic construct comprising p53 and p14ARF genes or gene variants thereof.
- 2. The bicistronic construct of claim 1 disposed in a vector selected from the group of vectors consisting of retro viral, adeno-associated viral, herpes simplex viral, cytomegaloviral vectors.
- 3. The bicistronic construct of claim 1 disposed in a non-viral delivery vehicle selected from the group consisting of liposomes, polylysine carrier complexes, or naked DNA.
- 4. A vector comprising a bicistronic construct comprising p53 and p14ARF genes, or genes variants thereof, wherein said vector is selected from the group of vectors consisting of retro viral, adeno-associated viral, herpes simplex viral, cytomegaloviral vectors.
- 5. A delivery vehicle comprising a bicistronic construct comprising p53 and p14ARF genes, or genes variants thereof, wherein said delivery vehicle is selected from the group consisting of liposomes, polylysine carrier complexes, or naked DNA.
- 6. A pharmaceutical carrier comprising a bicistronic construct comprising p53 and p14ARF genes or genes variants thereof, or a vector comprising a bicistronic construct comprising p53 and p14ARF genes or genes variants thereof,, or delivery vehicle comprising a bicistronic construct comprising p53 and p14ARF genes or genes variants thereof,, wherein said delivery vehicle is selected from the group consisting of liposomes, polylysine carrier complexes, or naked DNA.
- 7. A method of inducing killing or apoptosis or growth arrest of malignant or metastatic cancer cells, said method comprising the step of contacting said cells with a bicistronic construct comprising p53 and p14ARF genes, or gene variants thereof provided that said variants express protein having tumor suppressor activity.

- 8. The method of claim 7 wherein said bicistronic construct is disposed in a vector selected from the group of vectors consisting of retro viral, adeno-associated viral, herpes simplex viral, cytomegaloviral vectors.
- 5
- 9. The method of claim 7 wherein said bicistronic construct is disposed in a non-viral delivery vehicle selected from the group consisting of liposomes, polylysine carrier complexes, or naked DNA.
- 10 10. The method of claim 7 wherein said bicistronic construct is disposed in a pharmaceutical carrier.
 - 11. The method of claim 10 wherein said bicistronic construct is disposed in a viral vector selected from the group of vectors consisting of retro viral, adeno-associated viral, herpes simplex viral, cytomegaloviral vectors.
 - 12. The method of claim 10 said bicistronic construct is disposed in a non-viral delivery vehicle selected from the group consisting of liposomes, polylysine carrier complexes, or naked DNA.

20

15

- 13. The method of claim 7 used in combination with one or modes of therapy selected from the group consisting of radiation therapy and chemotherapy.
- 14. The method of claim 7 wherein said cancer cell is selected from the group consisting of head and neck cancer cells, breast cancer cells, lung cancer cells, colon tumor cells, liver tumor cells, brain tumor cells, kidney tumor cells, skim tumor cells, ovarian tumor cells, prostate tumor cells.